



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,368	12/15/2000	Byron C. Gehman	AUS920000810US1	9818

7590 01/24/2005

Frank C. Nicholas
CARDINAL LAW GROUP
Suite 2000
1603 Orrington Avenue
Evanston, IL 60201

EXAMINER

ABEL JALIL, NEVEEN

ART UNIT	PAPER NUMBER
----------	--------------

2165

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/738,368

Applicant(s)

GEHMAN ET AL.

Examiner

Neveen Abel-Jalil

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 and 16-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11-15, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Remarks

1. The response to election/restriction filed on June 17, 2004 has been received and entered. Claims 6-10, and 16-18 have been withdrawn with traverse. Claim 12 has been cancelled. Claims 1-5, 11, 13-15 and 19-20 are pending for current examination.

2. Claims 6-10, and 16-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Invention II, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on June 17, 2004.

3. Applicant's election with traverse of Invention I in the reply filed on June 17, 2004 is acknowledged. The traversal is on the ground(s) that the claim merely recites the preferred additional steps. This is not found persuasive because although the applicant points out invention II is not implementable on its own, invention I is and indeed can stand alone. Invention II can be implement with a method distinct from invention I, monitoring queues as disclosed by invention II does not need to be implemented with a master event server, it can be done with order fulfillment and replenishment, or routing network packets, or monitoring signals from a digital device, very distinct applications.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-5, 11, 13-15, and 19-20 are rejected under 35 U.S.C. 101 because the claims are directed to a non-statutory subject matter, specifically, directed towards an data structure.

The Supreme Court has repeatedly held that abstractions are not patentable. "An idea of itself is not patentable". "Rubber Tip Pencil Co. V. Howard", 20 Wall.498, 07. Phenomena of nature, though just discovered, mental processes, abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work "Gottschalk v. Benson", 175 USPQ 673, 675 (S Ct 1972). It is a common place that laws of nature, physical phenomena, and abstract ideas are not patentable subject matter. "Parker v. Flook", 197 USPQ 193, 201 (S Ct 1978).

Database Structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are neither physical "things" nor statutory processes. Applicant's claims are not within any of the statutory classes. "A database structure" should define structural and functional interrelationships between data structures or functional parts and a computer system which permit the data functions to be realized, and is statutory.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2165

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim 20 is rejected under 35 U.S.C. 102(e) as being anticipated by Strauble et al. (U.S. Patent No. 6,446,077 B2).

As to claim 20, Strauble et al. discloses a system, comprising:

a directory client (See Strauble et al. column 5, lines 12-67);

a master directory database operable to store data (See Strauble et al. column 6, lines 1-26);

a directory service provider server operable to manipulate said data (See Strauble et al. column 6, lines 1-26); and

a directory event subsystem operable to notify said directory client of any manipulation of said master directory database by said directory service provider server (See Strauble et al. column 6, lines 49-67, also see Strauble et al. column 4, lines 19-31).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-5, 11, 13-15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strauble et al. (U.S. Patent No. 6,446,077 B2) in view of Bose et al. (U.S. Pub. No. 2002/0042830 A1)

As to claim 1, Strauble et al. discloses a method for processing directory events, comprising:

operating a directory service provider server to perform a data manipulation within a master directory database (See Strauble et al. column 14, lines 25-38);

operating an event master server to assign a number to said data manipulation (See Strauble et al. column 9, lines 9-37); and

operating said event master server to store said number within said master directory database (See Strauble et al. column 5, lines 11-67, wherein “number” reads on “integer”).

Strauble et al. does not teach a sequence number.

Bose et al. teaches a sequence number (See Bose et al. page 9, paragraphs 0082-0083).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Strauble et al. to include a sequence number.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Strauble et al. by the teaching of Bose et al. to include a sequence number because it provides for accurate tracking and monitoring of modified data (See Bose et al. page 10, paragraph 0018).

As to claim 2, Strauble et al. as modified discloses further comprising:

operating said event master server to provide an event message to an event service server, said event message including said sequence number and an event notification (See Bose et al. page 9, paragraphs 0082-0083).

operating said master database to replicate said sequence number to a replicate directory database (See Strauble et al. column 13, lines 1-45, also see Strauble et al. column 9, lines 47-63); and

operating said event service server to provide said event notification to an event client server in response to said replication of said sequence number to said replicate directory database (See Strauble et al. column 9, lines 1-37, also see Bose et al. page 8, paragraphs 0075-0077, and see Bose et al. page 9, paragraphs 0079-0080).

As to claim 3, Strauble et al. as modified discloses comprising:

operating said event client server to provide said event notification to at least one directory client registered to receive said event notification (See Strauble et al. column 6, lines 49-67, and see Strauble et al. column 7, lines 1-7, also see Bose et al. pages 6-7, paragraph 0051, also see Bose et al. pages 13-14, paragraph 0111).

As to claim 4, Strauble et al. discloses a method for processing directory events, comprising:

operating a master database to replicate a data manipulation and a number to a replicate directory database, said number corresponding to an event notification (See Strauble et al.

column 6, lines 49-67, and see Strauble et al. column 7, lines 1-7, also see Strauble et al. column 5, lines 11-25, wherein “number” reads on “integer”); and

operating said event service server to provide said event notification to an event client server in response to said replication of said number to said replicate directory database (See Strauble et al. column 5, lines 11-41).

Strauble et al. does not teach a sequence number.

Bose et al. teaches a sequence number (See Bose et al. page 9, paragraphs 0082-0083).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Strauble et al. to include a sequence number.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Strauble et al. by the teaching of Bose et al. to include a sequence number because it provides for accurate tracking and monitoring of modified data (See Bose et al. page 10, paragraph 0018).

As to claim 5, Strauble et al. as modified discloses comprising:

operating said event client server to provide said event notification to at least one directory client registered to receive said event notification (See Strauble et al. column 4, lines 19-45, also see Strauble et al. column 2, lines 5-18, and see Bose et al. pages 13-14, paragraphs 0111-0113).

As to claim 11, Strauble et al. discloses a system, comprising:

a master directory database operable to store data (See Strauble et al. column 5, lines 11-41);

a directory service provider server operable to manipulate said data (See Strauble et al. column 6, lines 49-67, also see Strauble et al. column 4, lines 19-31); and

an event master server operable to assign a number to any manipulation of said data within said master directory database by said directory service provider server, wherein said event master server is further operable to store said first number within said master directory database (See Strauble et al. column 9, lines 4-37, also see Strauble et al. column 10, lines 45-67).

Strauble et al. does not teach a sequence number.

Bose et al. teaches a sequence number (See Bose et al. page 9, paragraphs 0082-0083). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Strauble et al. to include a sequence number.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Strauble et al. by the teaching of Bose et al. to include a sequence number because it provides for accurate tracking and monitoring of modified data (See Bose et al. page 10, paragraph 0018).

As to claim 13, Strauble et al. as modified discloses further comprising:

a replicate directory database operable to store said data, wherein said master directory database is further operable to replicate said data and a second sequence number to said replicate directory database (See Strauble et al. column 9, lines 1-37, also see Bose et al. page 8,

paragraphs 0075-0077, and see Bose et al. page 9, paragraphs 0079-0080).

As to claim 14, Strauble et al. as modified discloses further comprising:

an event service server operable to poll said replicate directory database for said second sequence number in response to said first sequence number from said event master server (See Bose et al. page 2, paragraphs 0015-0018, also see Strauble et al. column 9, lines 1-37, also see Bose et al. page 8, paragraphs 0075-0077, and see Bose et al. page 9, paragraphs 0079-0080).

As to claim 15, Strauble et al. as modified discloses further comprising:

a directory client (See Strauble et al. column 5, lines 12-67); and
an event client server operable to provide an event notification to said directory client, wherein said event service server is further operable to provide said event notification to said event client server when said first sequence number is less than or equal to said second sequence number (See Bose et al. page 2, paragraphs 0015-0018, also see Strauble et al. column 9, lines 1-37, and see Strauble et al. column 9, lines 40-60, also see Bose et al. page 8, paragraphs 0075-0077, and see Bose et al. pages 9-10, paragraphs 0082-0085).

As to claim 19, Strauble et al. discloses system, comprising:

an event master server operable to assign a number to a manipulation of a data within a master directory database (See Strauble et al. column 6, lines 49-67, also see Strauble et al. column 4, lines 19-31);

an event service server operable to determine said number being stored within a replicate directory database (See Strauble et al. column 6, lines 1-26, also see Strauble et al. column 9, lines 1-37, and see Strauble et al. column 9, lines 40-60); and

an event client server operable to provide an event notification to at least one directory client when said number is being stored within said replicated directory database, said event notification corresponding to said manipulation of said data (See Strauble et al. column 5, lines 11-67, wherein “number” reads on “integer”, also see Strauble et al. column 9, lines 1-37).

Strauble et al. does not teach a sequence number.

Bose et al. teaches a sequence number (See Bose et al. page 9, paragraphs 0082-0083).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Strauble et al. to include a sequence number.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Strauble et al. by the teaching of Bose et al. to include a sequence number because it provides for accurate tracking and monitoring of modified data (See Bose et al. page 10, paragraph 0018).

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074. The examiner can normally be reached on 8:30AM-5: 30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 571-272-4038. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Neveen Abel-Jalil
January 13, 2005

A handwritten signature in black ink, appearing to read "C. Rones".

**CHARLES RONES
PRIMARY EXAMINER**